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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,216	02/10/2005	Mubarik Mahmood Chowdhry	265070US0PCT	6422
22850	7590	10/25/2006	EXAMINER	
C. IRVIN MCCLELLAND OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			LEE, RIP A	
			ART UNIT	PAPER NUMBER
			1713	

DATE MAILED: 10/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/524,216

Applicant(s)

CHOWDHRY ET AL.

Examiner

Rip A. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4-20 is/are rejected.
- 7) ☒ Claim(s) 1, 3 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action follows a response filed on August 2, 2006. Claim 1 was amended, and new claim 21 was added. Claims 1-22 are pending.

Claim Objections

1. Claims 1 and 22 are objected to because of the following informalities: Replace “using one or more metal complex compounds” with “in the presence of one or more metal complex compounds.” Currently, the claims are drawn to use of a material without defining any definitive steps as to how this is to be achieved. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 2, and 4-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kristen *et al.* (WO 01/44325) for reasons set forth in the previous office action.

Kristen *et al.* Kristen *et al.* discloses methods of emulsion polymerization of olefins with a group 7-10 metal complex having general structure (Ib), wherein radicals R⁴ to R⁹ contain an electron withdrawing group X, such as -SO₃⁻. An activator may also be present. The resulting polyolefin dispersions are useful as a paper/paint coating, paper sizing, molded articles, textile and leather applications, coatings for underside of carpets and pharmaceutical applications (see abstract). Monomers and corresponding polyolefin types are disclosed on page 8. In particular, copolymerization of 1-olefins, such as ethylene, with styrene is contemplated (lines 29-31). Anionic, cationic, and nonionic emulsifiers are disclosed on page 29. Useful solvents are disclosed on page 28, lines 28-30. Substituents R⁴ to R⁷ are a C₆-C₁₄ aryl group substituted with electron withdrawing group X or halogen (page 2, lines 43-45), and R⁸ and R⁹ are a C₆-C₁₄ aryl group substituted with group X (page 3, lines 12-14). One skilled in the art would find in the text

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that an example of such a substituent is *p*-benzosulfonate, $-\text{C}_6\text{H}_4\text{SO}_3^-$ (page 11, line 13). Although the examples do not show metal complexes containing this substituent, it would have been obvious to one having ordinary skill in the art to make such a compound because the inventors indicate that this type of compound is useful for the practice of the invention. Therefore, it would have been obvious to one having ordinary skill in the art to arrive at the method of making an aqueous polymer dispersion using a metal complex containing a *p*-benzosulfonate substituent, and he would have expected such a process to work equally well. The reference is also silent with respect to the term “mini-emulsion.” However, in light of the fact that the resulting polymer particles exhibit a particle sizes are less than 1000 nm (preferable ranges of 50-500 nm and 70-350 nm; page 30, lines 31-34), which is essentially the same range defined in the claims, one having ordinary skill in the art would have found it obvious to believe that the emulsions described in the prior art qualify as “mini-emulsion” defined in the instant claims. Since the PTO can not perform experiments, the burden is shifted to the Applicants to establish an unobviousness difference. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

4. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Use of complexes containing the substituent described in the claim is neither taught nor fairly suggested in the disclosure of Kristen *et al.*

5. The general subject matter of claim 21 is free of the prior art cited to date. The invention of claim 21 is drawn to a process in which group X of compound I is nitrogen. Kristen *et al.* does not teach such a process.

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Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

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October 19, 2006



DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700